

ON A COLLECTION OF HUMMING-BIRDS FROM ECUADOR AND MEXICO.

By ERNST AND CL. HARTERT.

(Pl. IV.)

IN the summer of 1893 the Tring Museum received the most beautiful collection of Humming-Birds that ever reached Europe. They were collected by Mr. O. T. Baron, mostly in Ecuador, and partly in Mexico and California.

The most remarkable character of this collection is their preservation, for they are all stuffed *from the flesh* in the most lifelike positions, as they were observed by the collector, who shot and stuffed them all himself. They surpass in beauty everything we have ever seen of Humming-birds.

As will become obvious from our remarks, the collection—besides its external beauty—contains some species of great scientific interest, and even unknown forms.

The collection was accompanied by a number of nests and eggs, and by valuable notes of the collector—which, however, we should have liked more detailed and more complete, as Mr. Baron's experience must have unveiled to him many unrecorded facts of the life-history of the beautiful daylight-stars of the Andes.

In our arrangement of the species represented in this collection we have followed the standard work of Mr. Osbert Salvin in the *Catalogue of Birds*, vol. xvi., but we must confess that this is merely done for the sake of convenience of our readers and ourselves, and that—without presuming to criticise Mr. Salvin's arrangement of this very difficult group—we do not consider the divisions made according to the presence or absence of serrations on the sheath of the maxilla a very fortunate step, especially as between the sections with the serrate tomlia and with the smooth tomlia a great number of intermediate forms (*Trochili intermedii*) had to be placed.

I. FROM ECUADOR.

1. *Heliothrix auritus* (Gm.).

A male and a female from Zamora, on the east side of the Andes, shot on May 16th and in June.

2. *Heliothrix barroti* (Bourc.).

West of the Andes, on the Río Pescado, near Naranjal; shot on February 18th. Also seen there in March and April.

3. *Schistes geoffroyi* (Bourc. & Muls.).

A fine group collected at Río Negro Hacienda, on the Río Pastassa, east of the Andes, in the month of August, when they were in good plumage.

4. *Schistes albogularis* Gould.

Two specimens with the white throat in poor plumage, both marked "female," shot at Gualaquiza, Ecuador, at an elevation of 4000 feet.

5. *Hemistephania ludoviciae rectirostris* (Gould).

Dorytera rectirostris Gould. *Intr. Mon. Troch.*, p. 56 (Ecuador). *Hemistephania rectirostris*, Elliot, *Syn. Troch.*, p. 81; *Tacz. d' Berl. P. Z. S.*, 1885, p. 102 (Mapoto, Ecuador); Salvin, *Cat. B.*, xvi., p. 39 (1892).

Ten adult specimens from Zamora and Rio Pastassa, collected in July. They were in good plumage from May to September.

There seems, indeed, to be nothing to distinguish the Ecuadorian form from the common *H. ludoviciae* from Colombia, except the longer bill. Were the difference *constantly* as big as given by Mr. Salvin (*l. c.*)—*i. e.*, 0·3 in., we should be prepared to keep the two forms specifically distinct, but as the length is not always quite the same, and the difference often much smaller, as the measurements show, we think these intermediate forms make it necessary to degrade the Ecuadorian bird to the rank of a subspecies.

The ten Ecuadorian specimens in the Baron collection have the exposed culmen: 1·47 in., 1·45, 1·5, 1·48, 1·45, 1·45, 1·45, 1·4, 1·45, 1·4.

Nine Colombian specimens before us (Bogotá collections) have the exposed culmen: 1·28 in., 1·35, 1·2, 1·35, 1·25, 1·19, 1·26, 1·23, 1·34.

6. *Chlorostilbon prasinus* (Less.).

A small but beautiful series collected in May at Gualaquiza, Ecuador.

7. *Thalurania hypochlora* Gould.

Rio Pescado, near Naranjal, Ecuador.

8. *Thalurania nigrofasciata* (Gould).

Zamora and Gualaquiza, Ecuador.

The Tring Museum has received, in exchange, from Count Berlepsch a skin from Santa Cruz, Bolivia, labelled as *Thalurania jelskii* Tacz. It is closely allied to *Th. nigrofasciata*, but the abdomen is distinctly more violet and the green throat and upper breast are slightly tinged with bluish, instead of a more golden tinge in *Th. nigrofasciata*. There is also, perhaps, a small difference in size. (See Salvin, *Cat. B.*, xvi., p. 84.)

9. *Chalybura intermedia* sp. nov.

Diagn.: *Chalybura supra ciridis, gutture aurco-ciridi, abdomine caeruleo-vel beryllino, cauda chalybaea, mandibula ad basin carnea.*

Hab. Ecuador.

Above shining green with a metallic gloss, darker on the head and upper tail-coverts. Tail deep steel-blue, without the slightest wash of bronzy green. Wings purplish black, wing-coverts like the back. Throat and upper breast shining golden green, abdomen greenish blue, beryl-green, or a little more bluish (see Ridgw., *Nomencl. Col.*, Pl. X., fig. 14). All the feathers of the under parts very narrowly bordered with brownish grey, flanks washed with brownish grey. Under tail-coverts white. Upper mandible black, under mandible flesh-colour for about two-thirds of its length, tip blackish.

This new species differs from *Chalybura caeruleogaster* (Reich.) from Bogotá, Colombia, in the colour of the abdomen (which is of a rich deep blue in *Ch. caeruleogaster*) and in the light colour of the under mandible. Besides the white

under tail-coverts, which have the well-known fluffy character of the genus *Chalybura* or *Hypuroptila*, seem to be a little shorter than in *Ch. caeruleogaster* and *Ch. buffoni*.

It differs from *Ch. urochrysea*, with which it agrees in the colour of the under mandible, in the deep steel-blue colour of the tail and the bluish abdomen.

Total length about $4\frac{1}{2}$ inches.

Dimensions of Chalybura intermedia.

WING.	CULMEN.	TAIL.
in.	in.	in.
2.85	1	1.7
2.75	0.98	1.7
2.7	0.97	1.68
2.75	1	1.7
2.7	1.1	1.7
2.8	1.05	1.8
2.7	0.98	1.75
2.75	0.95	1.77

Eight fine specimens, all alike, apparently all males, were shot in July, on the road from Guayaquil to Loja, between Poggio and Santa Rosa, in hot country on Bananas.

The generic terms *Hypuroptila* (Gould, *Mon. Trochil.*, II., Pl. LXXXIX. and text) and *Chalybura* (Reichenb., *Aufz. Colibris*, p. 10) were both introduced in the year 1854, and it is probably not possible to say which one was published earlier. However, the name of *Chalybura* has been in general use for nearly all of the species of the genus, and therefore it is preferable not to alter it; but see Salvin, *Cat. B.*, xvi., p. 87.

After the addition of this new species, the key to the species of the genus *Chalybura*, as given by Salvin, *l. c.*, must be altered, or rather completed, as follows:—

A. Mandible quite black: under tail-coverts generally longer.

a. Under surface green: *Ch. buffoni*.

b. Under surface blue: *Ch. caeruleogaster*.

A. Mandible flesh-colour at base; under tail-coverts generally shorter.

c. Under tail-coverts white.

a¹. Under surface entirely green: *Ch. urochrysea*.

a². Under surface not entirely green.

a³. Throat and chest tinted with blue: *Ch. isaurae*.

b³. Throat golden green, abdomen greenish blue: *Ch. intermedia*.

d. Under tail-coverts purple-black: *Ch. melanorrhoea*.

19. *Petasophora iolata* Gould.

Mr. Baron found this well-known species all over the highlands of Ecuador, from Riobamba to Loja. They were in good plumage in March and April.

Nests were found in April and May. One nest, containing two eggs, is a very thick-walled cup, built of moss, lichen, soft vegetable wool, and a few hairs; inside lined with soft woolly seeds.

The two eggs measure 16×9 millimètres, and are white without gloss, like all known humming-birds' eggs.

The nest measures $5\frac{1}{2}$ centimètres across outside, the cup $3\frac{1}{2}$. The depth is not at all great, but the bottom very thick.

In the birds there is a very remarkable difference in size between the sexes, the males being much larger, with the wing more than a centimètre longer, and the bill much longer and stouter.

11. *Petasophora cyanotis* (Bonc. & Muls.).

Pogio, road from Loja to Santa Rosa, Ecuador; July, good plumage.

The female differs remarkably from the male, being smaller, with the wing much shorter, and having a strong, glossy, coppery wash all over the upper parts.

12. *Petasophora delphinae* (Less.).

In good plumage in July near Zamora and Pogio, Ecuador.

13. *Pterophanes temmincki* (Boiss.).

A number collected on the summit close to Sigsig, near Cuenca, in May and June, when they were in beautiful plumage.

14. *Diphlogaena iris* (Gould).

Count Berlepsch (*Ibis*, 1887, p. 295) distinguished the Ecuadorian bird subspecifically under the name of *D. iris buckleyi*; but, as Mr. Salvin justly remarks (*Cat. B.*, xvi, p. 122), the differences stated there are not borne out by the series in the British Museum.

Mr. Baron collected a fine series in good plumage between San Lucas and Loja, Ecuador, at elevations of 9000 feet. They were always seen in dark cañons, generally over water and under overhanging rocks. Nest with eggs found not very high above water in the month of December. The nest is built entirely of soft greenish moss, lined inside with the extremely soft rufous hairs of a kind of fern (*Osmunda*?). It is outside $2\frac{3}{4}$ inches high and $2\frac{1}{2}$ inches thick, the cup 1 inch deep and $1\frac{1}{2}$ broad. The two eggs measure 17×10 millimètres.

15. *Diphlogaena hesperus* Gould.

On the road from Naranjal to Cuenca, at elevations of 10,000 feet. In good plumage from October to December.

16. *Helianthea lutetiae* (Delattre & Muls.).

Seven fine specimens in good plumage, shot in May between Loja and Zamora, Ecuador, at 10,000 feet. Met with on both sides of the Andes, generally at high elevations between 6000 and 12,000 feet.

17. *Bourcieria fulgidigula* Gould.

From the west side of the Andes, near Mollituro, Ecuador, shot in December at an elevation of 8000 feet. In beautiful plumage. Seen at elevations of from 6000 to 12,000 feet.

18. *Bourcieria torquata* (Boiss.).

Shot on the Rio Pastassa, east of the Andes, in July, then being in fine plumage.

Not distinguishable from specimens from Bogotá, Colombia.

19. *Lampropygia wilsoni* (Del. & Bourc.).

A fine series from Rio Pescado, at elevations of from 500 to 3000 feet. In good plumage from January to February.

The difference in size between the males and females is most remarkable, the wing measuring 2.8 to 2.9 inches in the former, and only 2.4 to 2.55 in the latter.

20. *Lampropygia columbiana* Elliot.

Rio Negro Hacienda and Rio Pastassa, east of the Andes, at elevations of from 3500 to 4000 feet.

As in *L. wilsoni*, the sexes are very unequal in size, the wing of the males measuring 2.95 to 3 inches, that of the females only 2.6 to 2.7 (measured 15 males and 7 females).

21. *Cyanolesbia coelestis* (Gould). (Salvin, *Cat. B.*, xvi, p. 139.)

Collected on the west side of the Andes, on the road from Loja and Naranjal to Cheuca, at elevations of from 2000 to 6000 feet, mostly at 5000 feet above the sea. In good plumage in April.

This species is closely allied to *Cyanolesbia gorgo* (Reichb.), from Bogotá, but the longer bill, the much browner, somewhat bronzy colour of the underparts, and perhaps larger size in general, serve to distinguish the males, while in the females there is apparently always much white on the breast, which is not the case in the females of the Colombian *C. gorgo*. As these characters seem to be quite constant, there is no reason why they should not justify a specific separation of the Ecuadorian bird.

22. *Cyanolesbia mocoa* (Del. & Bourc.).

East from Baños, on the Rio Pastassa, east side of the Andes, at elevations of about 1000 feet. Evidently in good plumage about October.

The glittering green tail distinguishes this species from *C. coelestis*, from the west side of the Andes of Ecuador, but it is closely allied to the green-tailed Colombian form, *C. emmae* Berl. (*J. f. O.*, 1892, pp. 453 and 454), which, however, has no blue spot on the throat, and a longer bill. The females have less white on the underparts than those of *C. coelestis*, and agree in this respect with the females of *C. gorgo*.

C. emmae Berl. might better be treated as a subspecies, as there seem to be specimens intermediate between *C. gorgo* and *C. emmae*.

The following species and subspecies of the genus *Cyanolesbia* seem to be recognisable as far as our present knowledge goes (see Salvin, *Cat. B.*, xvi, pp. 137 to 141; Berl., *J. f. O.*, 1892, pp. 452 to 454; Tacx., *Orn. de Pérou*, i., p. 334).

A. Outer rectrices green.

a. Blue gular spot.

a¹. Under surface pale cinereous, feathers of gular spot white at base *C. griseiventris* (Pern).

b. Under surface dull metallic green, feathers of gular spot dark at base.

a². Tail longer, gular spot sapphire-blue: *C. mocoa* (Ecuador).

b². Tail shorter, gular spot greenish blue: *C. mocoa smaragdina* (Bolivia).

b. No blue gular spot *C. emmae* (Colombia).

B. Outer rectrices blue.

c. Blue gular spot, tail shorter.

*a*¹. Under surface dull green, bill shorter.

*a*². Outer and inner rectrices deep blue : *C. gorgo* (Colombia).

*b*². Outer rectrices blue, inner greenish : *C. gorgo margarethae* (Caribbean hill-ranges, Venezuela).

*b*¹. Under surface greenish brown, bill longer : *C. caelestis* (Ecuador).

d. No blue gular spot, tail longer : *C. caudata* (Andes of Venezuela).

23. *Lesbia victoriae* (Bourc. & Muls.).

(See Salvin, *Cat. B.*, xvi., p. 146.)

At high elevations east and west of the Andes. A few were shot near Cuenca. Very plentiful near Riobamba, and at the foot of the Chimborazo. They are in good plumage from May to December. Nests and eggs were found in April and May. The nest consists of dark-coloured moss and roots, and is covered with a thin roof of fern leaves and moss. It is lined inside with deep, rufous, soft, silky hairs taken from a mountain-fern (*Osmunda*?).

The two eggs are small, measuring 14.4 × 9 millimètres.

The female sits on the nest with the tail doubled up, so that the tip of the tail is visible close to the head looking out of the entrance-hole.

24. *Lesbia gouldi gracilis* (Gould).

All Bogotá specimens before us have the under tail-coverts much greener than any of those from Ecuador, which have them dull buff with a metallic green spot in the middle. This character seems to be rather constant, and the birds from Bogotá have also, on an average, the bill slightly shorter. It is therefore desirable to keep the two forms distinct, at least subspecifically, as there seem to be intermediate specimens in the British Museum.

The nest is a loose structure of dry twigs, moss, and lichen, nearly quite covered at the top. The tail of the female, when sitting on the eggs, is doubled up beside the body.

The nest was found at Loja in April, and contains no eggs. The birds were shot in April at Loja and Cuenca, at elevations of from 6000 to 12,000 feet.

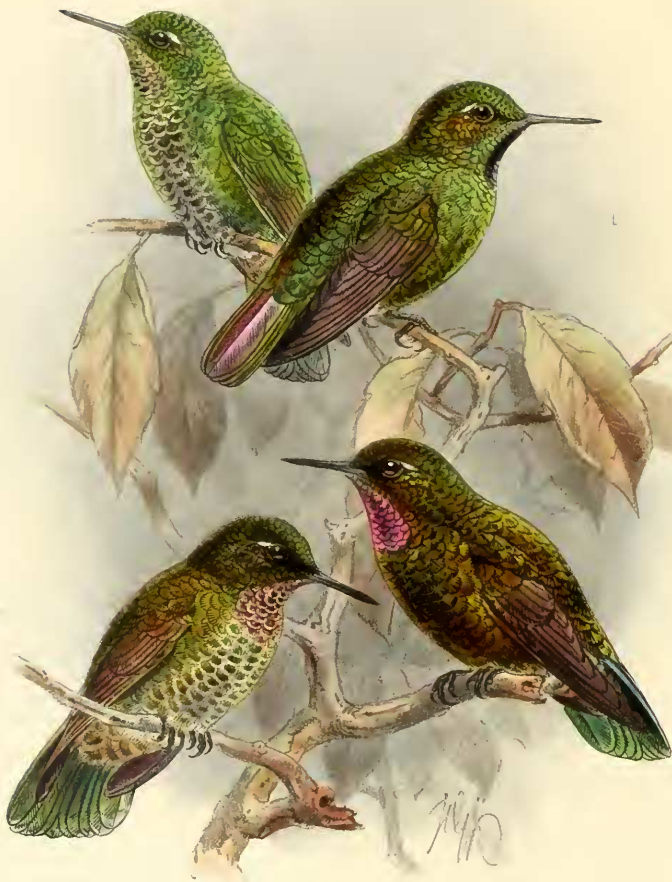
25. *Metallura tyrianthina quitensis* (Gould).

Met with east and west at different altitudes, but chiefly at elevations of from 8000 to 12,000 feet.

Gould (*Introd. Mon. Troch.*, p. 77) and Heine (*J. f. O.*, 1863, p. 210) declared emphatically that the Ecuadorian birds were quite different from those from Bogotá, Colombia, while Salvin (*Cat. B.*, xvi., p. 153) says they are similar. We have 15 specimens from Bogotá and 17 from Ecuador before us, and we must say that we cannot find any difference in colour, but that there certainly is a difference in size. The wing of all the Ecuadorian birds is about 0.1 inch, or more, longer than that of the Bogotá birds, and the bill is about 0.01 in. longer.

The type of *M. tyrianthina* (*Trochilus tyranthinus* Lodd., *P. Z. S.*, 1832, p. 6) came from Popayan. Before Popayan specimens are actually compared with others, it is, in our opinion, not quite settled whether they belong to the form of Bogotá or to that of Ecuador, because the ornithology of Popayan seems partly to





1, 2, 3 & 4 METALLURA ATRIGULARIS, Salp. PARONI.

agree as much with that of Ecuador as with that of Bogotá, Colombia. The name of *Ornismya allardi* (Bourc., *Rev. Zool.*, 1839, p. 355) applies strictly to the Bogotá bird, and that of *M. quitensis* to the Ecuadorian form.

26. *Metallura baroni* Salvin. (Pl. IV., figs. 3, 4.)

Salvin, *Bull. B. O. C.*, i., p. xlix. (Diagn.); reprinted *Ibis*, 1893, p. 449.

Adult male. Above dark metallic olive with a green tint. Wings deep purple brown. Small coverts on the carpo-metacarpal joint pale rufous. Tail like the back if viewed from above, shining violet purple if viewed from behind. Tail beneath shining metallic green. Under surface like the back, but feathers of the lower flanks and under tail-coverts bordered with dark buff, and the entire chin and throat shining violet purple, like "dahlia purple." (Ridgw., *Nomencl. Col.*, Pl. VIII., fig. 2.) but lighter, this colour reaching to the sides of the neck. Under wing-coverts bronzy green.

Adult female. Resembles the male, but all the feathers of the under parts with green discal spots and with buff subterminal bars. Feathers of the throat with shining violet-purple discal spots and also with buff subterminal bars.

Measurements of Metallura baroni.

	Wing.	Tail.	Bill.		Wing.	Tail.	Bill.	
	Inches.	Inches.	Inches.		Inches.	Inches.	Inches.	
♂	2.3	1.6	0.53	♀	2.26	1.56	0.55	
	2.4	1.55	0.53		2.3	1.5	0.51	
	2.3	1.6	0.56		2.2	1.5	0.51	
	2.26	1.5	0.53		2.1	1.5	0.5	
	2.26	1.5	0.52		2.15	1.49	0.51	
	2.32	1.56	0.53		2.16	1.48	0.52	
	2.26	1.5	0.55		2.19	1.48	0.5	
	2.32	1.6	0.58					

Hills near Cuenca at altitudes of 12,000 feet.

A nest with egg was found in April. It is a big structure with the wall elevated behind, somewhat of the form of a clumsy slipper without heel. It consists of moss, twigs, wool, and other similar materials. At the back it is about $5\frac{1}{4}$ inches long, and in front not quite $3\frac{1}{2}$, outside across $2\frac{1}{4}$, the cup $1\frac{1}{4}$ across and $1\frac{1}{2}$ deep. The egg measures 14.5×8.6 mm.

27. *Metallura atrigularis* Salvin. (Pl. IV., figs. 1, 2.)

Salvin, *Bull. B. O. C.*, i., p. xlix. (Diagn.); reprinted *Ibis*, 1893, p. 449.

Adult male. Above shining bronzy green, with a faint metallic blue tinge if viewed from behind. Wings deep purple brown. Small coverts on the carpo-metacarpal joint rufous. Tail dark shining bronzy green, changing into purplish steel blue if viewed from behind, bright metallic green below. Below shining bronzy green, glittering on the throat and upper breast. Middle of the throat with a big, deep velvety black patch. These feathers are greyish at base, before the black tip a chestnut buff bar, and between this and the black tip a narrow iridescent metallic line. Under wing coverts bronze green.

Adult female. Resembles the male, but has no black on the throat, the feathers there having glittering golden green discal spots and a bright buff

subterminal bar. Feathers of the abdomen and under tail-coverts bordered with buff. Lateral rectrices tipped with pale buff.

Measurements of Metallura atrigularis.

	Wing.	Tail.	Bill.		Wing.	Tail.	Bill.
	Inches.	Inches.	Inches.		Inches.	Inches.	Inches.
♂	2.35	1.6	0.5	♀	2.32	1.64	0.54
♂	2.35	1.55	0.5	♀	2.27	1.56	0.51
♂	2.35	1.55	0.52	♀	2.2	1.52	0.52
♂	2.26	1.55	0.52	♀	2.15	1.45	0.55
♂	2.3	1.65	0.5	♀	2.14	1.42	0.55
♂	2.4	1.55	0.55	♀	2.14	1.48	0.5
♂	2.36	1.6	0.55	♀	2.2	1.5	0.55

From the hills near Sigsig, south-east of Cuenca, at altitudes of about 12,000 ft.

28. *Heliangelus laticlavus* Salvin.

Salvin. *Cat. B.* xvi., p. 160, Pl. V., fig. 1 (1892).

Thirteen wonderful specimens of this rare bird were collected near Loja, in Southern Ecuador, at 9000 feet in April, when they were in good plumage.

Adult male. Above shining green with a slight bronze hue, more distinct on the rump. Head and neck blackish when viewed from in front. A small frontal spot glittering bluish grass green when viewed from in front, blackish green when viewed from above or behind. Chin blackish. Throat glittering purplish rosy red, shading into bluish purple towards the chin. A broad white pectoral band, slightly tinged with buff on the edges. Lower breast and sides of abdomen shining green, middle of abdomen dull buff. Under tail-coverts dusky brown, broadly bordered with white. Rectrices purplish black, two or three outer pairs with very small buffy white tips, central pair dark shining grass green. Wings deep purplish brown. Bill and feet black.

One specimen marked "*female*" is smaller, and has the glittering spot on the throat smaller and surrounded with ochraceous buff.

Total length about 4 inches, wing 2.55 to 2.58, tail 1.65 to 1.79, central pair of tail-feathers 0.15 shorter, exposed culmen 0.6 to 0.67.

The female is distinctly smaller: total length 3.7 inches, wing 2.2, tail 1.55, culmen 0.65.

29. *Heliotrypha viola* (Gould).

Found on the west and east sides of the Andes of Ecuador at elevations of 8000 to 10,000 feet.

A nest with one egg was found in April. It is a soft structure chiefly consisting of moss, outside ornamented with some lichens and very softly lined with fine wool. It was attached to the top of a branch, is about 2 inches high and measures $1\frac{1}{2}$ in. inside across. The egg is elliptical and measures 0.66×0.36 .

30. *Heliotrypha micraster* (Gould).

The name should be spelt as above, not *micrastur*, as spelt by Elliot and Salvin.

A fine series, collected near Loja, at elevations of 9000 to 10,000 feet. In brilliant plumage in June.

The adult female is similar to the male, but smaller, less dark and greener on the head and upper tail-coverts, the glittering spot on the throat smaller, the feathers of the chin white, blackish at base, only a patch in the middle of the abdomen buff. Salvin's description of the female in *Cat. B.*, xvi., p. 166, seems to be that of an immature bird. Wing in the males 2·5 to 2·6 inches, in the females 2·27 to 2·3; tail in the former 1·65 to 1·75, in the latter 1·55.

This species shows that the genera *Heliangelus* and *Heliotrypha* are very closely allied, as it somewhat connects them.

31. *Urosticte benjamini* (Bonre.).

One specimen from Rio Pescado, Ecuador.

32. *Urosticte ruficrissa* Lawr.

An admirable series from the Rio Pastassa, collected in August, when they were in good plumage.

33. *Adelomyia melanogenys* (Fraser) and

34. *Adelomyia maculata* Gould.

There are generally, and also recently in the *Catalogue of Birds*, xvi., pp. 169, 170, two different forms united under the name of *Adelomyia melanogenys*, one the true *A. melanogenys* (described from Bogotá by Fraser, *P. Z. S.*, 1840, p. 18, type in the Liverpool Museum), of which *A. sabine* (Bonre. & Muls.) is a synonym, and *A. maculata* (described from Ecuador by Gould, *Mon. Troch.*, iii., pl. 199).

Mr. Salvin (*Cat. B.*, xvi., p. 170) is, no doubt, right in saying that the larger size and longer bill, which are said to distinguish *A. maculata*, are not constantly distinct, but there are other characters that serve to separate the two species.

In *A. melanogenys* the pale basal portion of the rectrices is small, restricted to the part of the tail which is hidden by the under tail-coverts, and brownish buff of colour. In *A. maculata* the pale portion is lighter and of a real buff colour, and extends far beyond the tail-coverts and over half or more than half the length of the rectrices.

In *A. maculata* the buff tips to the rectrices are larger, in *A. melanogenys* they are smaller.

As a rule *A. melanogenys* is deep green above, while *A. maculata* is distinctly golden green or bronzy green above. This character, however, seems to vary occasionally in *A. maculata*, but all *A. melanogenys* from Bogotá seem to have the upper parts dark green.

Our figures on p. 55 will illustrate the differences. They are most accurately done from specimens sent by Mr. Baron.

This gentleman collected *A. melanogenys* on the Rio Pastassa, east of the Andes, at elevations of from 5000 to 7000 feet, while he found *A. maculata* west of the Andes, on the road from Loja to Santa Rosa and Guayaquil, at elevations of from 5000 to 7000 feet. He further assured us that the two species had different call-notes.

35. *Phlogophilus hemileucurus* Gould.

A single specimen with a dark outer edging to the white tip of the lateral rectrices, not sexed, from Ecuador.

36. *Agyrtria viridiceps* (Gould).

A series in good plumage, collected on the Rio Pescado, on the west side of the Andes, in January.

37. *Agyrtria fluviatilis* (Gould).

A fine series in good plumage, collected in July and August on the Rio Pastassa, and at Zamora and Gualaquiza, Ecuador. They are all marked "♂," except two marked "♀" by the collector, which have the wing only 2 inches, instead of at least 2.2 in the males, the feathers on the throat and breast distinctly margined with whitish, and distinct greyish tips to the outer rectrices.

38. *Amazilia alticola* Gould.

In fair numbers at Loja, Ecuador, in March and April.

The middle of the breast is pure white, the bases of the feathers blackish: the sides of the breast glittering golden green, this colour making an attempt to meet across the middle of the under surface. This is very conspicuous in all the lifelike stuffed specimens before us, but less distinct in poor skins, and it is neither clearly shown in Gould's figure (*Mon. Troch.*, v., pl. 304), nor described in Salvin's description (*Cat. B.*, xvi., p. 206). The under tail-coverts are white, washed in the centre with pale chestnut, often with the exception of the longest ones.

39. *Amazilia dumerili* (Less.).

In fair plumage in February, near Naranjal and San Martin, W. Ecuador.

The breast is white, almost encircled by glittering golden green feathers, the abdomen chestnut. Under tail-coverts white, only some of the upper ones washed with pale chestnut in the middle (cf. Gould, *Mon. Troch.*, v., pl. 305; Salvin, *Cat. B.*, xvi., p. 207).

The female is *not* quite similar to the male. The wing of the male is 2.3 in. long, that of the female 2.1 in., and the abdomen is very pale chestnut in the female while it is rich chestnut in the male.

The quite chestnut abdomen of the male is another character to distinguish *A. dumerili* from *A. alticola*, the latter having the abdomen white in the middle and only chestnut near the flanks.

40. *Amazilia riefferi* (Bourc.).

San Martin, near Naranjal, Ecuador, April.

41. *Floricola albicrissa* (Gould).

Met with in the hot belt on the west side of the Andes, in Ecuador. A series in good plumage collected from May to August between Ambocas and Loja.

42. *Damophila juliae* (Bourc.).

Naranjal, Ecuador, at low elevations near to the level of the sea. In good plumage in February.

43. *Polyerata amabilis* (Gould).

Three specimens from the Rio Pescado, near Naranjal, Ecuador, west of the Andes. Shot in March. Good plumage.

44. *Chrysuronia oenone* (Less.).

Common on September 29th, near Zamora, Ecuador.

THE GENUS EUTOXERES.

When looking over Mr. Baron's collection from Ecuador, we were struck by finding in it three different species of *Eutoxeres* of the *aquila* group. They were already put down as three different species by the collector, who believed that one was *E. heterura*, and that the two others were probably new species. We found that one was *Eutoxeres aquila* (Bourc.), the second *E. heterura* Gould, and the third, in our opinion, a new species, which we called *E. baroni*, after the collector. The former (*E. aquila*) was procured east of the Andes, the two others west of the Andes. The peculiar *E. condumini* (Bourc.) was not met with by Mr. Baron.

45. *Eutoxeres aquila* (Bourc.).

We received a series in fine plumage, collected in July and August, on the Rio Pastassa, east of the Andes. They agree entirely with a good number of skins from Bogotá, Colombia, that we compared. Their rectrices have (as Mr. Salvin justly described in *Cat. B.*, xvi., p. 261) *the shafts white for about half their distal ends, the web adjoining gradually becoming more broadly white towards the tip.*

One adult male has one of the rectrices abnormally entirely white, while the corresponding one on the other side is normally marked.

46. *Eutoxeres heterura* Gould.

This species was originally described by Gould in *Ann. and Mag. N. H.*, 1868, i., pp. 455-7.

Gould mentioned the "great variability in the markings of the tail-feathers," and, in our opinion, confounded two different forms under his name, as all subsequent ornithologists also did—namely, one with a dark greenish-brown tail and with large white tips to the outer rectrices, which on the outer web have the white colour terminated by a transverse edge: and another species with an olive-grey tail, and with very small white tips to the rectrices, if any. Both these forms were received and described originally by Gould, and both are among his types in the British Museum. Therefore it becomes—as no single specimen was marked as "type" by the author—difficult and arbitrary to those who distinguish these two forms which of them should be regarded as typical *E. heterura* Gould.

We think that the form with the dark greenish-brown tail, and with the large white tips transversely edged on the outer web of the outer pair of rectrices, is by far the commoner in collections; and in most collections only this one is represented as *E. heterura*. Moreover, Gould first of all mentioned, *l. c.*, p. 455, the form with the big white tips. We therefore think we cannot be blamed if we choose to restrict the name of *E. heterura* Gould to this species.

This, then, is distinguished from *E. aquila* (from Colombia and the east side of the Andes in Ecuador) by *the shafts of the rectrices being white for less than half of their distal ends, and the white on the outer webs of the lateral rectrices being defined transversely.* Besides, it must be mentioned that the tail-feathers are more attenuated towards the ends, a character only visible in younger individuals in the two allied species, but apparently always pronounced in *E. heterura*. Several authors stated that the central spots to the feathers of the under surface are buff, while they are white in *E. aquila*. This seems to be wrong, as we have seen specimens of *E. aquila* with a distinct buff colour on the breast-feathers, and specimens of *E. heterura* that had them as white as any individuals of *E. aquila*.

With this true *E. heterura*, in our restricted sense, seems the Central American *E. salicini* to be identical. At least, one of us, who most carefully examined the specimens in the British Museum, was not able to make out the slightest differences between the two. Mr. Salvin (*Cat. B.*, xvi., p. 262) is fully right in saying that *E. salicini* cannot be confounded with *E. aquila*, but is nearer to *E. heterura*. He, however, says that the colour of the central spots to the abdominal feathers is different, being buff in *E. heterura* and white in *E. salicini*; but one of the birds from Calovevora, Panama, in the British Museum, seems to be the bulkiest of all, and this character is, we believe, variable, and perhaps due to age.

Our figures, which we have drawn with the greatest care and without any exaggeration, will, we trust, better explain the differences of the three species than our descriptions can.

The habitat of *E. heterura* is somewhat puzzling, for the specimens in the British Museum are said to be from Quito and Sarayacu, on the east side of the Andes, while Mr. Baron found *E. aquila* on the east side of the Andes, and recorded *E. heterura* from the Rio Pescado near Naranjal, west of the Andes. He adds, "In good plumage from March to July. Nesting approximately April and May."

47. *Eutoxeres baroni* sp. nov.

Easily distinguished from the two allied species by its olive-grey tail, with a faint greenish metallic hue only, if any, and with small white tips to the rectrices, sometimes restricted to the central pair and sometimes altogether absent.

Mr. Baron sent these also from the Rio Pescado, near Naranjal, and noticed that they were in good plumage from March to July, and that their nesting season was April and May.

We may mention that the Hon. Walter Rothschild, who took much interest in the collection and our work on it, quite agrees with us, that these three species are distinct.

48. *Threnetes cervinicauda* Gould.

Gualaquiza, Rio Pastassa, east of the Andes, July.

49. *Phaethornis yaruqui* (Bourc.).

A series from the Rio Pescado, near Naranjal, collected in July.

Provided Mr. Baron has not wrongly dissected the specimens, the female is *not* similar to the young male, but closely resembles the adult male, only differing in a slightly more distinct gular stripe.

50. *Phaethornis guyi emiliae* (Bourc. & Muls.).

This form is only distinguishable from *P. guyi* in fully adult specimens by a blue tinge, instead of a green one, on the upper tail-coverts and the base of the rectrices, but sometimes specimens seem to be hardly distinguishable. They probably grade into each other, and it is therefore, perhaps, wise to follow Graf Berlepsch, who considers them only subspecifically distinct. (See Salvin, *Cat. B.*, xvi., p. 269; Berl. *J. J. O.*, 1887, p. 314.) Berlepsch has an unmistakable true specimen of *Phaethornis guyi* (Less.), undistinguishable from specimens from Trinidad and Venezuela, in his collection, which came from Bogotá.



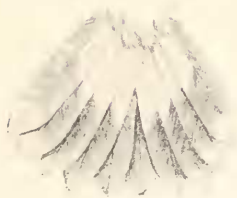
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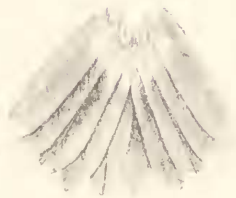
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5

- 1. Tail of *Eutaerxes aquila* from above.
- 2. " " " *heterura* " "
- 3. " " " *baroni* " "
- 4. " " *Adelmomyia maculata* from below.
- 5. " " " *melanogyns* " "

The female of this species resembles the young male (which is apparently entirely similar to the young female) in colour, having the broad buff or even ferruginous postocular and malar stripes, a paler grey breast, and the lower abdomen broader and more pronounced ferruginous buff, but in the narrow-pointed shape of the rectrices it agrees with the adult male, the young birds having the central rectrices much longer and much broader.

Mr. Baron collected a series of adult and immature specimens, near Zamora in Ecuador, during the month of May. He also found a nest. The nest consists of black dry roots and moss, is not lined, and sparsely ornamented with light coloured lichens on the outside. It is thin and transparent on many places.

51. *Phaethornis syrmatophorus* Gould, and

52. *Phaethornis berlepschi* sp. nov.

There are, in our opinion, from Gould up to the present time, two different species united under the name of *Phaethornis syrmatophorus* Gould. One is slightly larger, has the middle of the abdomen pure white, the flanks rich buff, the rump and upper tail-coverts deep tawny ochraceous. This is no doubt, according to the figure and original description of Gould (*Contr. Orn.*, 1851, p. 129, and *Mon. Troch.*, i., pl. 20, 1852), the typical *P. syrmatophorus*, although among the specimens of the Gould collection in the British Museum, there are also specimens of the second species. The latter is slightly smaller, has the middle of the abdomen not distinctly white, the rump like the back and the upper tail-coverts of a rich ochraceous buff (but neither this nor the true *P. syrmatophorus* has them fawn colour as Salvin described them, *Cat. B.*, xvi., p. 274), and the tips of the lateral rectrices are paler, passing into whitish on the pair next to the elongated central pair. In this species all the feathers of the upper parts are much more distinctly margined with buff than it is the case in *P. syrmatophorus*. We name it after our esteemed friend, the well-known Trochilidist, Graf Hans von Berlepsch.

In *P. syrmatophorus* proper the wing measures 2.35 to 2.4 inches, the tail 2.7 to 2.9, the exposed culmen 1.6 to 1.68, while in *P. berlepschi* the wing is 2.2 to 2.4 inches, the tail 2.7 to 2.8, the culmen 1.5 to 1.6 (6 specimens of each species measured).

P. syrmatophorus was collected in July and August (in the most perfect plumage) two days of travel east of Baños, on the Rio Pastassa, east side of the Andes. *P. berlepschi* was found in January on the Rio Pescado, west of the Andes.

In *The Humming Bird*, i., p. 17 (1891), Mr. Boncard described a supposed new species of *Phaethornis* under the name of *P. colombianus*. This name was given with a query as a synonym to *P. syrmatophorus* in Salvin's *Cat. B.*, xvi., p. 274. There was, from the description, a suspicion that Boncard's species might be our *P. berlepschi*; but the author, to whom we are much obliged for it, willingly lent us his type for comparison, and we found it to be an undoubted, though somewhat immature, specimen of the true *P. syrmatophorus*, with the deep tawny ochraceous rump and upper tail-coverts. Young *P. syrmatophorus* have the throat and breast dusky and the feathers of the upper parts fringed with buff, but the rump and tail-coverts are as deep coloured as in adult specimens. Mr. Boncard wrote us that he does no longer consider his *P. colombianus* a valid species. His bird is one of the well-known trade-skins from Bogotá, which, for the most part, are collected in the valleys north of that town.

53. *Phaethornis superciliosus* (Linn.) (?).

There is one single specimen shot in May at Naranjal, near the Rio Pescado, which seems to belong to this species. We will speak of this bird again, if comparison of further material should alter our opinion about it.

54. *Pygmornis griseigularis* (Gould).

A fine series, shot in May near Zamora, Ecuador. This species can always easily be distinguished from *P. striigularis* by its rufous under surface.

55. *Pygmornis striigularis* (Gould).

Rio Pescado, near Naranjal, Ecuador, January. This species can always easily be distinguished from *P. griseigularis* by its much more greyish breast and abdomen, and by the under tail-coverts being dull whitish instead of rufous, as in *P. griseigularis*.

56. *Campylopterus villavicencio* (Bourc.).

One male and two females, in good plumage, shot at Zamora, Ecuador, in May. The females have the wing nine millimètres shorter than the male.

57. *Aphantochroa hyposticta* Gould.

Zamora, Gualaquiza, Rio Negro Hacienda, Rio Pastassa, July and August. The female is entirely similar to the male.

58. *Urochroa bougueri* (Bourc.).

On the Rio Pastassa, east of the Andes, at elevations of 4000 feet, July 22nd to July 30th in good plumage.

The series contains two adult males and six adult females, all sexed by the collector. The males agree with Salvin's description (*Cat. B.*, xvi, p. 301): the females have a chestnut patch on either side of the gape, but otherwise they are similar to the male. The extent of the black on the outer rectrices varies in the males as well as in the females. If *Urochroa leucura* of Lawrence (*Ann. Lye. N. Y.*, viii, p. 45) is a distinct species, all these specimens would belong to it, but according to Elliot and Salvin the names of *U. bougueri* and *U. leucura* refer to one species.

59. *Docimastes ensiferus* (Boiss.).

A small series was collected between October and December, when they were found to be in perfect plumage. They were observed on both sides of the Andes at elevations of from 8000 to 12,000 feet.

Heine (*J. f. O.*, 1863, p. 215) first distinguished the Ecuadorian bird as *Docimastes schliephacki*, and Berlepsch and Taczanowski degraded it to the subspecific rank. The difference seems to lay only in the longer beak of the Ecuadorian bird, but this character now seems to us not at all constant, although the majority of the Ecuador birds may have a longer beak.

60. *Heliodoxa leadbeateri* (Bourc. & Muls.).

East slopes of the Andes in Ecuador, Zamora, Gualaquiza, Rio Negro, near Rio Pastassa.

In good plumage from May to September.

61. *Heliodoxa jamesoni* (Bourc.).

West slopes of the Andes in Ecuador, Rio Pescado, Naranjal, San Martin. In fair plumage in January.

62. *Phaeolaema aequatorialis* Gould.

San Martin, near Molleturo, Ecuador. In good plumage in January and February.

63. *Lafresnaya gayi* (Bourc. & Muls.).

On the road from Naranjal to Baños and Cuenca, on both sides of the Andes, at elevations of from 10,000 to 12,000 feet.

The whole series belongs to typical *L. gayi*, and not one to the doubtful form *L. saulac*. (Cf. *Cat. B.*, xvi., p. 328.)

64. *Oreotrochilus pichincha* (Bourc. & Muls.).

From the mountains near Cuenca to the Chimborazo, at elevations of from 12,000 to 17,000 feet. In good plumage in November.

Mr. F. C. Lehmann, of Popayan, when visiting the Tring Museum, confirmed Mr. Baron's statement as to the distribution of *O. pichincha*. He has collected it in the same country as Mr. Baron, and found them there as common as on the Pichincha.

65. *Oreotrochilus chimborazo* (Delattre & Bourc.).

Chimborazo, at elevations of from 12,000 to 17,000 feet. In fine plumage in November. In moult in June and August.

The nest is 4 inches long, but very thick at the bottom, so that the cup is only $1\frac{1}{2}$ inch deep. Outside measure across $2\frac{3}{4}$ inches, inside $1\frac{3}{4}$ inch. The two eggs measure 17×11 millimètres. The nest is built of moss, wool, and a fine short grass, and not very strongly woven together.

66. *Rhamphomicron stanleyi* (Bourc. & Muls.).

From Cuenca to the Chimborazo, at elevations of from 10,000 to 16,000 feet. Collected in good plumage in April and September.

A nest was found in April. It was placed in the fork of a branch, and is built of moss and roots, and lined inside with cotton. It is about 2 inches high, and just as wide: the cup is $\frac{3}{4}$ inch deep, and $1\frac{1}{2}$ inch wide.

The egg measures 15.5×10.5 millimètres.

67. *Rhamphomicron herrani* (Delattre & Bourc.).

An admirable series from the hills at Sigsig, south-east of Cuenca, at elevations of 12,000 feet. In fine plumage in May.

68. *Rhamphomicron ruficeps* (Gould).

A single very fine adult male from Loja, Ecuador. It is entirely similar to males from Bolivia in the British Museum. We believe it has not yet been recorded from Ecuador.

69. *Patagona gigas* (Vieill.).

A series of sexed adult specimens shot at Riobamba, Ecuador, in May and June, and one young male shot in the middle of June, all at elevations of from 8000 to 10,000 feet.

The sexes are similar, but the young male is uniform deep rufous beneath, with only some very narrow whitish edges to the feathers. Above it has a streak of white along the back and rump, while most of the feathers are edged with white, those of the head with rufous.

70. *Aglaeactis cupreipennis* (Bourc. & Muls.).

A good series collected near the summit of the Andes, between Cuenca and Loja, in the month of February, when they were in good plumage.

The Ecuador bird has been separated from the Colombia bird under the name of *A. aequatorialis* (Cab. & Heine, *Mus. Hein.*, iii., p. 70 [1860]). The differences seem not to be constant. Some specimens from Bogotá, Colombia, have the under parts and throat just as dark as those from Ecuador; there is no difference in the tails; the length of the bill and wing varies in both the Colombia and Ecuador bird; and some specimens from Bogotá have the wing longer than most of our Ecuador birds.

A nest was found in April. It is a beautiful roundish structure, consisting of very fine rufous and black moss and fibres, sparsely ornamented with light-coloured small leaves and lichens, lined with a wonderfully soft and elastic rufous-coloured material, apparently the hairs of some *Osmunda* or another fern.

It measures above outside across $2\frac{1}{2}$ inches, the cup $1\frac{1}{2}$ inch, and nearly as deep.

71. *Klais guimeti* (Bourc. & Muls.).

Seven specimens shot in May near Zamora, east of the Andes.

72. *Eriocnemis smaragdinipectus* (Gould).

A number of males and females, collected near Loja and Cuenca, at elevations of from 9000 to 10,000 feet. In good plumage in May and June.

73. *Eriocnemis evelinae* sp. nov.

Similis ♀ *E. godini* (Bourc.), sed rostro brevior, mandibula ad basin carnea, caudae tectricibus splendidioribus, pectore obscuriore.

One single specimen, marked γ, from the Rio Pastassa. We have carefully compared it with the specimens of all allied species in the British Museum and at Tring, as well as with all descriptions and figures, and find that it agrees most with the female of *E. godini*, but differs in its shorter bill, in the basal half of the mandible being flesh colour, and in the more brilliant glittering green colour of the upper tail-coverts.

Above shining grass green with a slight bronzy line, more distinct on the neck. Upper tail-coverts and a few of the last feathers of the lower back brilliant glittering, even much more brilliant than in the adult males in the British Museum. Tail deep steel blue. Wings purplish black. A tiny white spot behind the eye. A short buff streak from the loreal region downwards. Throat and breast dark brownish green, each feather being dark at base, buff towards the tip, and having a dark shining green discal spot at tip. Abdomen and flanks glittering green, the feathers dark grey at base. Tibial tufts snow white. Under tail-covert violet blue, slightly glittering, more bluish under a certain light, fringed with greyish buff.

Total length nearly 4 inches, wing 2.35, lateral rectrices 1.6, central 1.22, bill 1.59.

Named in honour of the sister of the owner of the Tring Museum.

74. *Eriocnemis luciani* (Bonre.).

A fine series from Guasi (Guaico, near Cuenca, Ecuador, where they were found at elevations of 10,000 and 12,000 feet.

Besides these birds we have before us nine specimens collected by Buckley in Ecuador, but in only one of all of them we can perceive a slight bronzy tinge on the central rectrices, as mentioned by Salvin, *Cat. B.*, xvi., p. 366.

75. *Eriocnemis lugens* (Gould).

Synonym *E. squamata* Gould, 1860.

A fine series collected on the Rio Pastassa (east of the Andes), in July and August, prove that *Eriocnemis lugens* (Gould, 1851) is the female of *E. squamata* (Gould, 1860). Mr. Baron always saw the two supposed species together, and pairing. While the male (*E. squamata*) has the tibial tufts partly white and partly pale chestnut, the female (*E. lugens*) has the tibial tufts pure white. Besides the latter has the wing two or three millimètres shorter, and perhaps the coppery gloss less bright.

The name of *E. lugens*, although given to the female, must stand, as it has nine years' priority.

76. *Panoplitus matthewsi* (Bonre.).

Collected in April, when they were in very good plumage, at Loja and Cuenca, Ecuador.

77. *Spathura melananthera* Jard.

In the hot and in the warm belts of the western slopes of the Andes of Ecuador, at elevations of from 2500 to 5000 feet. Poggio near Loja, Rio Pescado. In good plumage from June to September.

78. *Spathura solstitialis* Gould.

East slopes of the Andes in Ecuador. Zamora, Sabanilla, on the road from Loja to Zamora, Gualaquiza, Rio Pastassa, always in the warm region. Collected in May and June. In good plumage until October.

79. *Calliphlox amethystina* (Gm.).

Zamora, Ecuador. A number collected in September, in fairly good plumage.

80. *Acestrura heliodori* (Bonre.).

Rio Pastassa, Ecuador. Collected August 30th. Good plumage.

81. *Acestrura mulsanti* (Bonre.).

Near Poggio, on the roads from Santa Rosa to Loja, and Loja to Riobamba, at elevations of from 8000 to 12,000 feet. In good plumage from April to September.

82. *Chaetocercus bombus* Gould.

Rio Pescado and Poggio. A number collected in July, but none of them in perfect plumage.

83. *Myrtis fanny* (Less.).

Near Loja and Cuenca, at elevations of from 8000 to 9000 feet. In good plumage from April to September. A nest with two young birds was found on the 1st of April. It is a conical structure attached to some upright twigs, and consists

of fine vegetable wool, ornamented outside with light-coloured lichens. The nestlings are already feathered, and resemble the adult female, but the feathers above have rufous buff edges, and the under parts are more rufous buff.

84. *Lophornis stictolophus* Salv. & Elliot.

A number, collected near Zamora, Ecuador, in September, when they were in good plumage.

This species is known from Venezuela and Colombia, and Boucard (*Gen. Hum. B.*, p. 38) recorded it from Ecuador. The specimens agree entirely with skins from Colombia.

85. *Popelairia popelairii* (Du Bus.).

Prymnacantha popelairii Salvin, *Cat. B.*, xvi., p. 428.

A fine series from the east slopes of the Andes in Ecuador, shot at Zamora, Gualaquiza, Rio Pastassa, in the warm region. In good plumage from May to October.

86. *Popelairia conversi* (Bourc. & Muls.).

Prymnacantha conversi (Bourc. & Muls.) Salvin, *Cat. B.*, xvi., p. 430.

Naranjal, Ecuador. February in perfect plumage.

Berlepsch and Taczanowski (*P. Z. S.*, 1883, p. 567) distinguished the Ecuadorian bird under the name of *Gouldia conversi aequatorialis*, but it cannot be separated: and Count Berlepsch kindly wrote us that he himself does no longer consider it a distinct subspecies.

II. FROM MEXICO AND CALIFORNIA.

1. *Chlorostilbon auriceps* (Gould).

Near Chilpancingo, state of Guerrero, Mexico. A nest was found in October.

It is a thin-walled pan, constructed of very thin grasses and hairs, lined inside with a silky kind of cotton, evidently from an *Eriodendron* tree. Outside it is ornamented with large leaves and pieces of bark. From bottom to top it measures only $3\frac{1}{2}$ centimètres and $5\frac{1}{2}$ across. The cup measures $2\frac{1}{2}$ across. The two eggs are very tiny, and measure 12×7.5 millimètres.

2. *Jache nitida* Salv. & Godm.

In fair plumage in June at Dos Arroyos, near Acapulco, Guerrero, Mexico.

See Salvin's remarks on the species, *Cat. B.*, xvi., pp. 62 and 63. In *Biol. Centr. Amer.* the same author called the species *J. doubledayi* (Bourc.), thus uniting *J. doubledayi* and *J. nitida*.

3. *Phaeoptila sordida* (Gould).

Zumbango del Rio and Chilpancingo, state of Guerrero, Mexico, January.

4. *Eupherusa poliocerca* Elliot.

Chilpancingo, Mexico, at elevations of 5000 to 7000 feet.

The female (unknown according to *Cat. B.*, xvi., p. 74) differs much from the male. It is above shining grass-green with a golden gloss. Sides of the breast shining grass-green. Chin, throat, breast, abdomen, and under tail-coverts dusky white. Wings deep purplish brown, secondaries dull chestnut, wing-coverts like

the back, except the primary-coverts which are black with a metallic gloss. Outer tail-feathers pure white, with shining green borders on the outer webs, very small and almost obsolete on the outermost pair, becoming gradually broader towards the middle; third pair from outside with a big mark of shining green on both webs, central pair metallic green, next pair to the central pair metallic green with a white patch and a portion of the shaft white near the base and tipped with white. Culmen 0·8 in., wing 2·3, tail 1·35. Three females all alike.

The nest was found in October. It is a marvellous round structure of moss, outside ornamented with lichens, mostly of a whitish colour, inside lined with the very soft rufous hairs of a fern (*Osmunda*?). It is $1\frac{1}{2}$ inch high and nearly 2 inches wide, the cup nearly 1 inch wide and just as deep. The two eggs measure $12\cdot5 \times 9$ millimètres.

5. *Petasophora thalassina* (Sw.).

Mr. Baron found this species common in the Chilpancingo Mountains in Mexico, at elevations of from 6000 to 8000 feet from June to December. Nests were found from October to November. One nest seen is built of fine brown moss, and outside ornamented with leaves hanging long down from the walls of the tiny nest.

The two eggs measure 14×9 millimètres. The sexes differ greatly in size, the male having the wing about 5 to 6 millimètres longer. The female has also more of a golden wash above and below, and the bill and the tail shorter.

6. *Cyanomyia viridifrons* Elliot.

This very distinct species was collected in numbers at Zumpango del Rio and near Chilpancingo, State of Guerrero, Mexico.

7. *Amazilia cinnamomea* (Less.).

A fine series in good plumage, collected in June at Dos Arroyos near Acapulco, Guerrero, Mexico.

8. *Amazilia beryllina* (Licht.).

A series from Chilpancingo, Mexico, found at elevations of from 5000 to 7000 feet in January, when they were in good plumage.

A nest was found in October. It was placed on a thick branch, is $1\frac{1}{2}$ inch high and just as wide, but the cup is very shallow. The structure is very strong, and consists chiefly of fine grass and fibres, but is covered outside entirely with light-coloured lichens, and lined inside with the soft silky cotton and seeds of some composite *plant*. The two eggs measure $13 \times 8\cdot3$ millimètres.

9. *Floricola longirostris pallidiceps* (Gould).

A fine series from Chilpancingo, state of Guerrero, Mexico, at elevations of 4000 feet.

Compared with a great number of skins from Colombia and Venezuela the birds from Mexico have not only the crown paler green and less bluish, but also the throat a little more rosy and less of a violet tinge in it. It is, therefore, advisable to keep the Mexican bird distinct, and as there is, according to Salvin (*Cat. B.*, xvi., p. 230), a transition between the two forms, it is best named subspecifically.